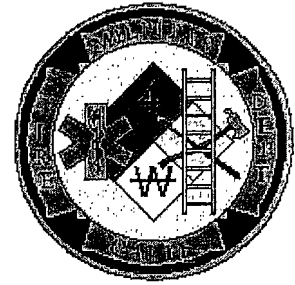


MEMORANDUM

Office of the Fire Chief



To: City Council

From: Geoff Maloon, Firefighter, Rob Mihovich, Battalion Chief

Through: Clare Frank, Fire Chief

Subject: Grant Approval for Diesel Exhaust Extraction System for Fire Stations

Date: March 10, 2006

Executive Summary:

The purpose of this report is to recommend City Council approve a Diesel Exhaust Extraction System grant to be funded in part with a sole-source contract and in part with matching funds already in the fire department's operating budget. The system would extract diesel fumes found to be hazardous to the health of personnel working in fire stations.

Background:

The City of Milpitas long ago recognized the hazards associated with long-term exposure to the carcinogens found in vehicle exhaust. As a result the City was on the cutting edge when exhaust extraction systems were installed in City fire stations in the 1980's. The systems available were limited and the City selected the most effective system on the market at the time.

Since that time the removal of exhaust in the firehouse has become a hot button issue in the fire service and has been addressed and referenced by OSH, NIOSH and NFPA. The result was the evolution of an entire industry dedicated to research, development and installation of exhaust extraction systems in firehouses through out the country.

According to NIOSH Current Intelligence Bulletin 50, "The emissions from diesel engines consist of both gaseous and particulate fractions. The gaseous constituents include carbon dioxide, carbon monoxide, nitric oxide, nitrogen oxide, oxides of sulfur and hydrocarbons (e.g., ethylene, formaldehyde, methane, benzene, phenol, 1,3-butadiene, acrolein and polynuclear aromatic hydrocarbons). Particulates (soot) in diesel exhaust are composed of solid carbon cores that are produced during the construction process and that tends to form chain or cluster aggregates. More than 95% of these particulates are less than 1 micrometer in size. Estimates indicate that as many as 18,000 different substances can be adsorbed onto diesel exhaust particulates. The adsorbed material constitutes 15% to 65% of the total particulate mass and includes such compounds as polynuclear hydrocarbons (PAH's) several of which are carcinogens."

NIOSH recommends that users of diesel powered equipment inform their workers and that professional and trade associations and unions inform their members of the new findings of potential carcinogenic hazards of exposure to diesel engine emissions and that all available preventive efforts be vigorously implemented to minimize exposure of workers to diesel exhaust.

In March of 2005 a task force was formed to address diesel exhaust contamination problems in stations 2, 3 and 4. The task force identified the replacement of the aged and

ineffective systems currently installed in stations 2, 3 and 4 as the most important task to be accomplished to mitigate the contamination of the stations with diesel exhaust.

In researching the systems available on the market, staff identified source capture systems as the only 100% effective systems available. To that end staff solicited quotes and presentations from the two available vendors for source capture systems. The two systems available are Plymovent and Magnegrip. Both systems are source capture systems that utilize a hose that attaches to the exhaust of the vehicle on one end and a ducted track that vents to the outside on the opposite end. Both systems are installed and serviced through regional vendors.

Three major factors compel staff to recommend the Plymovent system: (1) Durability and Product Quality, (2) Quality of Service and (3) Standardization.

- ***Durability and Product Quality***

Plymovent has a proven track record of high quality and durability. The Plymovent system utilizes a patented pneumatic nozzle to attach to the vehicle tailpipe and is the only manufacturer that has third party testing verification of a 100% capture rate. The Magnegrip system does not provide an airtight seal. The Magnegrip system requires regular (weekly) cleaning and maintenance while the Plymovent system is maintenance free. Plymovent hoses are rated to over 800 degrees Fahrenheit operating temperature (allowing for pump checks and extensive vehicle maintenance while parked in a bay) while Magnegrip hose is only rated to 400 degrees and will not allow for extended checks while vehicle is parked in the bay. Plymovent is the only manufacturer in the industry that is a UL listed and certified manufacturer. Finally, Plymovent has nearly twenty years experience providing exhaust capture systems and currently services over 1000 fire stations in the State of California.

- ***Quality of Service***

Air Exchange, Inc. (Plymovent regional vendor) employs all contractors, service technicians and installers while Magnegrip uses independent contractors for all installation and service. The current Plymovent system at station one has been extremely reliable and trouble free with only two minor service issues that were satisfactorily repaired in a responsive and timely manner.

- ***Standardization***

Plymovent is currently the system in use at station one. This system was installed during construction of the station and proven effective and reliable. The Plymovent system requires very minor tailpipe modifications while the Magnegrip system requires extensive tailpipe modifications to all vehicles that will use the system. The Magnegrip modifications to the tailpipes of the vehicles at stations 2, 3 and 4 will preclude the relocation or reassignment of those

vehicles to station one without extensive mechanical modifications. Vehicles that move up during emergency response to cover out of District from a different station will not be able to utilize the exhaust extraction system if the vehicles utilize a different system in their assigned station. Service will be simplified if only one vendor is used to service all systems as needed instead of a different vendor or contractor for different stations.

Funding:

The Fire Department was awarded a grant through the Assistance to Firefighters Grant Program in the amount of \$86,926.00 to cover 80% of the cost of purchase and installation. The grant is structured to require a local match of twenty percent or \$21,731.00 for the not to exceed total of \$108,657.00 that will be funded from the Fire Department's existing 2005-2006 budget.

Enclosure:

- Plymovent sales and demonstration literature
- NFPA 1500-Standard on Fire Department Occupational Safety and Health Program
- Standards and Enforcement document

Recommendation:

1. Award a sole/single source contract to Air Exchange, Inc. for the purchase and installation of Plymovent diesel exhaust extraction systems in three City fire stations for an amount not to exceed \$108,657.00.
2. Authorize the City Manager to sign a contract with Air Exchange, Inc. for the purchase and installation of Plymovent diesel exhaust extraction systems in the amount of \$108,657.00.

NFPA 1500

Standard on Fire Department Occupational Safety and Health Program

2002 Edition



NFPA, 1 Batterymarch Park, PO Box 9101, Quincy, MA 02269-9101
An International Codes and Standards Organization

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9.1.3 All existing and new fire stations shall be provided with smoke detectors in work, sleeping, and general storage areas.

9.1.3.1 When activated, these detectors shall sound an alarm throughout the fire station.

9.1.4 All existing and new fire department facilities shall have carbon monoxide detectors installed in sleeping and living areas.

9.1.5* All fire stations and fire department facilities shall comply with NFPA 101®, *Life Safety Code*®.

* 9.1.6* The fire department shall prevent exposure to fire fighters and contamination of living and sleeping areas to exhaust emissions.

9.1.7 All fire department facilities shall be designated smoke-free.

9.2 Inspections.

9.2.1 All fire department facilities shall be inspected at least annually to provide for compliance with Section 9.1. (See Annex G.)

9.2.2 Inspections shall be documented and recorded.

9.2.3 All fire department facilities shall be inspected at least monthly to identify and provide correction of any safety or health hazards.

9.3* Maintenance and Repairs. The fire department shall have an established system to maintain all facilities and to provide prompt correction of any safety or health hazard or code violation.

Chapter 10 Medical and Physical Requirements

10.1 Medical Requirements.

10.1.1 Candidates shall be medically evaluated and certified by the fire department physician.

10.1.2 Medical evaluations shall take into account the risks and the functions associated with the individual's duties and responsibilities.

10.1.3 Candidates and members who will engage in fire suppression shall meet the medical requirements specified in NFPA 1582, *Standard on Medical Requirements for Fire Fighters and Information for Fire Department Physicians*, prior to being medically certified for duty by the fire department physician.

10.1.4 Fire departments that operate their own fixed wing or rotary aircraft shall require fire department pilots who perform fire-fighting operations from the air to maintain a commercial Class 1 medical examination in conformance with Federal Aviation Agency (FAA) regulations for commercial pilots.

10.1.5* Members who are under the influence of alcohol or drugs shall not participate in any fire department operations or other duties.

10.2 Physical Performance Requirements.

10.2.1* The fire department shall develop physical performance requirements for candidates and members who engage in emergency operations.

10.2.2 Medical certification for the use of respiratory protection shall be conducted annually.

10.2.3 Candidates shall be certified by the fire department as meeting the physical performance requirements specified in NFPA 1583, *Standard on Health-Related Fitness Programs for Fire Fighters*, prior to entering into a training program to become a fire fighter.

10.2.4 Members who engage in emergency operations shall be annually evaluated and certified by the fire department as meeting the physical performance requirements specified in NFPA 1583.

10.2.5 Members who do not meet the required level of physical performance shall not be permitted to engage in emergency operations.

10.2.6 Members who are unable to meet the physical performance requirements specified in NFPA 1583 shall enter a physical performance rehabilitation program to facilitate progress in attaining a level of performance commensurate with the individual's assigned duties and responsibilities.

10.3 Health and Fitness.

10.3.1 The fire department shall establish and provide a health and fitness program that meets the requirements of NFPA 1583, *Standard on Health-Related Fitness Programs for Fire Fighters*, to enable members to develop and maintain an appropriate level of fitness to safely perform their assigned functions.

10.3.2 The maintenance of fitness levels specified in the program shall be based on fitness standards determined by the fire department physician that reflect the individual's assigned functions and activities and that are intended to reduce the probability and severity of occupational injuries and illnesses.

10.3.3 The fire department health and fitness coordinator shall administer all aspects of the physical fitness and health enhancement program.

10.3.4 The health and fitness coordinator shall act as a direct liaison between the fire department physician and the fire department in accordance NFPA 1582, *Standard on Medical Requirements for Fire Fighters and Information for Fire Department Physicians*.

10.4 Confidential Health Data Base.

10.4.1* The fire department shall ensure that a confidential, permanent health file is established and maintained on each individual member.

10.4.2 The individual health file shall record the results of regular medical evaluations and physical performance tests, any occupational illnesses or injuries, and any events that expose the individual to known or suspected hazardous materials, toxic products, or contagious diseases.

10.4.3* Health information shall be maintained as a confidential record for each individual member as well as a composite data base for the analysis of factors pertaining to the overall health and fitness of the member group.

10.4.4* If a member dies as a result of occupational injury or illness, autopsy results, if available, shall be recorded in the health data base.

- (6) Providing medical evaluation for personnel showing signs or symptoms of heat exhaustion or heat stroke

Typical rehabilitation considerations for operations during cold weather extremes are as follows:

- (1) Moving fatigued or unassigned personnel away from the hazardous area of the incident
- (2) Providing shelter from wind and temperature extremes
- (3) Providing personnel with fluid replenishment, especially water
- (4) Providing medical evaluation for personnel showing signs or symptoms of frostbite, hypothermia, or other cold-related injury

A.8.6.3 The assignment of an ambulance or other support crew to the rehabilitation function is essential during long-duration or heavy-exertion incident operations. This crew can assist with rehabilitation functions as well as be available to provide immediate life support needs for members.

A.8.6.5 The importance of hydration during wildland fire-fighting operations cannot be overemphasized. This concept should be clearly understood and utilized by all members. A method of replenishment of this water supply should be in place to provide 8 to 12 L (8 to 12 qt) of water per day, per member.

A.8.7.4 Incidents that appear routine in nature can, after the arrival of responding crews, turn into a violent or hostile environment. A standard communication phrase, known only by communications personnel and other responders, can warn others to the dangers of the situation without triggering violence or hostilities.

A.9.1.1 Where health, safety, building, and fire codes are not legally applicable to fire department facilities, steps should be taken to ensure that equivalent standards are applied and enforced. In the absence of local requirements, the provisions of NFPA 1, *Fire Prevention Code*; NFPA 101[®], *Life Safety Code*[®]; NFPA 70, *National Electrical Code*[®]; and a model plumbing, mechanical, and building code should be applied. In addition, the workplace safety standards specified in 29 CFR 1910 or an equivalent standard should be applied. Applicable requirements of the Americans with Disabilities Act, 1992 should be met.

A.9.1.5 As new stations are constructed or existing stations are renovated, a separation between the apparatus floor and living quarters should be provided.

A.9.1.6 The operation of a fire department requires the storage and indoor operation of fire apparatus that are generally housed in an enclosed building. The need to keep the apparatus and other vehicles ready for immediate service and in good operating condition, which requires the indoor running of vehicles for response and routine service/pump checks, makes storage in an enclosed area, such as an apparatus bay, necessary. The exhaust from all internal combustion engines, including diesel and gasoline-powered engines, contains over 100 individual hazardous chemical components that, when combined, can result in as many as 10,000 chemical compounds. A large majority of these compounds are today listed by state and federal regulatory agencies as being cancer causing or suspected carcinogens. The target components listed by NIOSH/OSHA consist of both hydrocarbon carbon components and compounds, which are produced in both gas-phase and particulate-phase compounds. The gases and particulates, which are viewed by NIOSH and OSHA as life threatening, consist of a cancer-causing substance known as polynuclear aromatic hydrocarbons (PAHs). Gases in diesel exhaust, such as nitrous oxide, nitrogen dioxide, formaldehyde, benzene,

sulfur dioxide, hydrogen sulfide, carbon dioxide, and carbon monoxide, can also create health problems. According to NIOSH, human and animal studies show that diesel exhaust should be treated as a human carcinogen (cancer-causing substance). In accordance with the NIOSH *Pocket Guide to Chemical Hazards*, as it pertains to diesel exhaust, NIOSH recommends that occupational exposure to carcinogens be limited to the lowest feasible concentration. NIOSH uses OSHA's classification, outlined in 29 CFR 1990.103, which states in part "Potential occupational carcinogen means any substance, or combination or mixture of substances, which causes an increased incidence of benign and/or malignant neoplasm, or a substantial decrease in the latency period between exposure and onset of neoplasm in humans or in one or more experimental mammalian species as the result of any oral, respiratory or dermal exposure, or any other exposure which results in the induction of tumors at a site other than the site of administration." This definition also includes any substance that is metabolized into one or more potential occupational carcinogen by mammals.

* Over the past decade, it has been documented that fire department personnel exposed to vehicle exhaust emissions have had adverse health effects, including death, even in areas where only short-term exposure had taken place. Secondary effects of vehicle exhaust have been sighted in the storage of sterilized medical equipment. The equipment is contaminated by exhaust emissions, handled by emergency services personnel while treating the public, thus creating a path for cross-contamination to the general public. In addition, there has been an effect on contamination to computers and emergency service electronics due to carbon deposits that lead to malfunction.

For the previously stated reasons and numerous support documentation, this technical committee recognizes and advocates the need for the elimination and the containment of all vehicle exhaust emissions to a level of no less than 100 percent effective capture. This complies with NIOSH's requirement to reduce the emissions to the lowest feasible level in an effort to reduce the health impact on human life. This, in turn, reduces the department's liability and risk.

The containment of the vehicle exhaust emissions should be achieved with a goal of eliminating all exhaust emissions from the breathing zone of the human inhabitants present in the station. Any system installed to suit this purpose should be made using "best available control technology."

A.9.3 In some jurisdictions fire department facilities are maintained by other agencies. In these situations fire departments should develop a process to expedite requests for repairs or modifications to the facility to address safety or health concerns.

A.10.1.5 If any member, either career or volunteer, reports for duty under the influence of alcohol or drugs, or any other substance that impairs the member's mental or physical capacity, this situation cannot be tolerated.

Evidence of substance abuse could include a combination of various factors such as slurred speech, red eyes, dilated pupils, incoherence, unsteadiness on feet, smell of alcohol or marijuana emanating from the member's body, inability to carry on a rational conversation, increased carelessness, erratic behavior, inability to perform a job, or other unexplained behavioral changes.

The possibility of liability exists if a member who is under the influence of alcohol or drugs is allowed to remain on duty, to operate or drive vehicles or equipment on duty, or to drive a private vehicle from the duty site. A member who is believed to be under the influence of alcohol or drugs cannot be allowed

***I*nternational *M*echanical *C*ode**



Standards and Enforcement

The organizations below all recognize vehicle exhaust emissions in their standards and enforcement policies. They in turn, recognize **Source Capture Extraction** as being the only effective means of removing the hazardous effects to this problem. We have listed for your convenience the position of these organizations to allow you to easily justify the financial commitment you will make in funding this project.

- **ACGIH** – American Conference of General Industrial Hygienist – *the threshold limit value (TLV) for diesel has been reduced from 5mg/m³ to a new more aggressive standard of 0.020mg/m³ (elemental carbon).* www.achih.org
- **NIOSH** –National Institute of Occupational Safety and Health – *in accordance with Niosh pocket guide for chemical hazards and its documentation for immediately dangerous to life or health concentrations, NIOSH recommends (Appendix A) that vehicle exhaust fumes are a potential human carcinogen and recommends that occupational exposure to this carcinogen be lowered to the lowest feasible concentration. Supporting documentation "Current Intelligence Bulletin 50" and NIOSH RELs and General Recommendations for Safety and Health.* www.cdc.gov/niosh/88116_50.html
- **OSHA** –Occupational Safety and Health Administration – 29 CFR 1990.103 *"potential occupational carcinogen means any substance, or combination or mixture of substances, which cause an increased incidence of benign and/or malignant neoplasm, or a substantial decrease in the latency period between exposure and onset of neoplasm in humans or in one or more experimental mammalian species as the result of any oral, respiratory or dermal exposure, or any other exposure that the site of administration."* **OSHA is aggressively enforcing stricter preventive measures due to the increase awareness of the health effects related to vehicle exhaust emissions.** www.osha.gov
- **AFSCME** – American Federation of State County and Municipal Employees (AFL-CIO) – AFSCME states, under control for vehicle exhaust emissions (diesel exhaust), that **"Local exhaust ventilation is the best way to reduce potential hazards to diesel exhaust.** A good ventilation system should include both intake and exhaust fans that remove harmful fumes at their source. Tailpipe or stack exhaust hoses should be provided for any vehicle being run in a maintenance shop" and **"General ventilation uses roof vents, open doors and windows, roof fans, or floor fans to move air through the work area. This is not as effective as local exhaust ventilation, and may simply spread the fumes around the work area.** General ventilation may be helpful, however, when used to supplement local exhaust ventilation."
- **NRDC** – Natural Resources Defense Council – *"the scientific evidence is clear: diesel exhaust is a complex mixture comprised of hazardous particles and vapors, some of which are known carcinogens and others probable carcinogens. Diesel exposure poses a significant and avoidable increase in human health risks. Compelling evidence from dozens of well-designed studies supports the conclusion that diesel exhaust causes cancer."* www.nrdc.org

- **NFPA – National Fire Protection Association 1500 – 2002 edition – A.9.1.6** " for the previously stated reasons and numerous support documentation, **this technical committee recognizes and advocates the need for the elimination and the containment of all vehicles exhaust emissions to a level of no less than 100 percent effective capture.** This complies with **NIOSH's** requirement to reduce the emissions to the lowest feasible level in an effort to reduce the health impact on human life. This, in turn, reduces the department's liability and risk. The containment of the vehicle exhaust emissions should be achieved with a goal of eliminating all exhaust emissions from the breathing zone of the human inhabitants present in the station. Any system installed to suit this purpose should be made using "best available control technology." www.nfpa.org
- **SBCCI / IMC – Southern Building Code Congress International / International Mechanical Code (BOCA, UMC) - 502.11 Motor Vehicle Operation.** "In areas where motor vehicles operate, recirculation of ventilation air is prohibited. Additionally **areas in which stationary motor vehicles are operated shall be provided with a source capture system that connects directly to the motor vehicle exhaust systems.**" Exceptions" 1). This section shall not apply where the motor vehicles being operated or repaired are electrically powered." 2.) This section shall not apply to one and two family dwellings. www.sbcci.org

REASONS FOR SELECTING THE *PlymoVent* DIESEL EXHAUST CAPTURE SYSTEM

When a City, State or Governmental agency embarks on an evaluation process to choose a product or service, there are many levels of the evaluation, and rarely do they begin and end with price.

1. **EXPERIENCE:** PlymoVent and Air Exchange, Inc are the largest and most experienced companies in the Industry providing Emergency Vehicle Exhaust Capture Systems in Northern California, Northern Nevada, Oregon, Washington and Idaho. Our systems are third party tested and have been manufactured since 1988. The PlymoVent system is not a prototype or a new concept. All of the competitors combined do **NOT** equal 25% of the PlymoVent systems in operation nation wide. *No other company offers this.*
2. **REFERENCES:** With over 500 fire stations in Northern California and the Northwest currently using the PlymoVent Diesel Exhaust Capture Systems, no other company comes close to our experience and system satisfaction. Additionally, there are at least another 500 fire stations in Southern California also using the PlymoVent System. *No other company offers this.*
3. **MUTUAL AID:** When responding to major fires or participating in homeland security situations, it is important that your Diesel Exhaust Capture System be compatible with other departments or agencies that may be called up into your stations. This will also apply to your vehicles that may be parking in other agencies stations. Many fire stations in your area already have PlymoVent systems installed. This allows the compatibility between your Departments or other agencies. Standardization between departments would eliminate the risk of carcinogenic exhaust fumes putting your personnel at risk. *No other company offers this.*
4. **LOCAL DISTRIBUTION:** Air Exchange, Inc. stocks over \$100,000 in both equipment and parts at our facilities. We also employ eight trained and certified service technicians who are experienced in installation and service tune-ups of the PlymoVent systems. This assures a uniform installation and consistent, timely, quality service. *No other company offers this.*
5. **UL LISTED MANUFACTURER:** PlymoVent is the only manufacturer in the Industry that is a UL listed and certified manufacturer. Their facilities and products are inspected once every 30 days by a UL inspector that comes to the facility to review their procedures. Many cities require the purchase of a UL listed product over a generic one since the UL listing reduces the liability exposure to the Municipality and its associated agencies. Both risk management and building code officials recognize the importance of a UL listed product over other products that have not been third party tested. *No other company offers this.*
6. **UL LISTED ELECTRONIC CONTROL PANEL:** PlymoVent is the only manufacturer in this industry that manufactures its own electrical control operating system in its own **UL LISTED AND CERTIFIED** facility in Edison, New Jersey. This means that quality control is completely in house and production lead times are shorter as the result of no outsourcing, which can result in incompatibility. *No other company offers this.*

7. **ISO-9001 CERTIFIED MANUFACTURER:** PlymoVent is one of only two manufacturers in the industry to have the ISO-9001 certification. Most cities are rated under ISO standards. This certification is used to set insurance liability ratings for your city and its residents. Whether your Department has a Class I – Class VI rating, the purchase of a system that meets ISO-9001 quality standards helps your Department achieve a more favorable ISO rating. Why would any city want to compromise and do business with any manufacturer that does not hold to the same quality and safety standards that your city must uphold? Insist that any supplier provide their ISO-9001 certificate with their bid. *No other company offers this.*
8. **WORK TRACKING SYSTEM:** PlymoVent and Air Cleaning Systems offer, at no cost to the user, a web based or intranet-based work tracking software system. This electronic accountability system allows that in the event of a service request, the station or agency can do the request on line using the “PlymoVent Online” work tracking system, or via you own department intranet system. When we receive the request, we respond with the time of arrival of our service technician, and after the service is performed, we respond once again to let the agency know the work has been completed and what was done. With over 400 fire stations in operation, we want to be responsive and accountable...and we are. *No other company offers this.*
9. **PIONEER CLUB:** PlymoVent is the only company in the industry to offer this “Pioneer Club Program for Future Upgrades”. This program entitles eligible departments to receive a charitable contribution consisting of PlymoVent equipment and parts in the event your system is out of date and worthy of upgrade. The equipment would be installed at an existing fire station, which at that time would be using an earlier generation of a PlymoVent system. The upgrade would be given free of charge and be treated as a charitable donation. *No other company offers this.*
10. **TWO-YEAR WARRANTY:** PlymoVent offers a two-year warranty on all systems provided by PlymoVent and installed by certified installation contractors. *No other company offers this.*
11. **100% CAPTURE VERIFIED BY THIRD PARTY TESTING:** PlymoVent is the only company in the Industry that has third party testing verification and can say that its system captures 100% of the vehicle exhaust emissions, both particulates and gases, at idle and high RPM. Other manufacturers do make these claims, but none of them can substantiate their performance through independent third party verification. This exposes your Department to unnecessary liability and will not allow you to comply with Federal, State and Local codes such as NFPA 1500-2000-A.9.1.6 which calls for “no less than 100% effective capture” or proposed standards by the American Association of Industrial Hygienist which are calling for an intended change to 0.02 mg/m3. *No other company offers this.*

PlymoVent and Air Exchange, Inc. are full service companies providing not only the product, but also a long list of additional benefits that enhance the overall value of the PlymoVent system. Features, advantages, and benefits are all ingredients in the evaluation of any product or service.

The PlymoVent Diesel Exhaust Capture System offers more of these features, advantages and benefits than any other company in the Industry. There is a reason why most departments choose to install the PlymoVent system over all the other competitors, and it was *not* because the PlymoVent system was the lowest price. In fact PlymoVent usually is not the lowest price, but chosen, because of system reliability over a long period of evaluation, as well as all of the reasons listed above.

FLORIDA FIRE SERVICE TODAY

MAY 2005
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The Official Journal for Florida's Fire and Emergency Services Professionals

FEMA Grant / AFG Grant Awarded for NO SMOKE Extraction System

Plantation Receives Federal Grant - Protects Environment

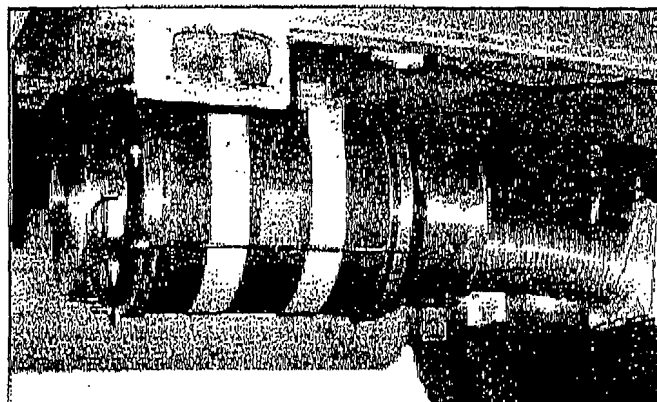
by Joel Gordon

The Plantation Fire Department recently received the federal grant as part of the Assistance to Firefighter's Program. The \$93,446 award provides for the installation of "No Smoke" filter devices on all fire department apparatus.

"Diesel exhaust is very sooty," explained Fire Chief Robert Pudney. "Every time we start our trucks, the fire station fills with pollutants." According to the device manufacturer, Ward Diesel, No Smoke is a patented, fully self-contained, completely automatic system that is retrofitted underneath the vehicles. It is designed to trap and remove many of the chemicals and particulate matter associated with diesel

smoke, thereby making the exhaust more environmentally safe.

The fire department will begin outfitting its existing fleet of vehicles early this spring. In addition, all new apparatus will come equipped with the No Smoke devices already in place. "This is, by far, the largest grant the department has ever received," explained Pudney. "It's nice to know this money will not only help the department, but will help protect the environment as well."



for more information visit www.warddiesel.com

*Got the FEMA Grant? Ward Diesel Filter's NO SMOKE is approved.
Whether specified in your application or NOT, fund NO SMOKE with your grant funds.*
FOR MORE INFORMATION OR GUIDANCE: www.FEMAGrant.com or www.AFGGrant.com or 800-845-4665

☐ **YES.** Send a FREE catalog, video and or pricing (Indicate number of vehicles _____)

Your Name: _____ Title: _____
Department: _____ Address: _____
CELL PHONE: _____ Day Phone: _____

RETURN VIA FAX (607) 739-7092

If you wish to be removed from this fax list, please call 1-800-915-2571, ext. 35460.

AIR EXCHANGE, INC.

The Clean Air Specialists

1185 San Mateo Avenue
San Bruno, CA 94066

Phone: 650-871-2945
Fax: 650-871-2948

Proposal submitted to: Milpitas Fire Department		Phone: (408) 586-2822	Date: 3/9/2005
Street: 25 Curtise Avenue		Application Engineer: DICK BERTANI	
City, State and Zip Code: Milpitas Ca., 95035		Job Location: Station #2, Yosemite St., OptionB	
Customer Representative: Geoff Maloon		e-mail: gmaloon@sbcglobal.net	Job Phone:
		Title: Batt. Chief	

We hereby submit estimate for our AIR CLEANING SYSTEM in accordance with the following:

Two (2)	Plymovent SBTA-502D slideing balancer track systems, drive through, 2 vehicles each	\$ 19,960.00
One (1)	Plymovent Alum non sparking fan, w/ 5hp, 240v, 1ph TEFC motor,	\$ 2,606.00
One (1)	Plymovent Control panel, UL listed, w/ pressure sensors, OS-3 706017	\$ 1,248.00
One (1)	Air compressor	\$ 620.00
Ductwork, miscellaneous parts and installation material		\$ 1,360.00
		Material Subtotal: \$ 25,794.00
		8.25% Sales Tax: \$ 2,128.01
		Electrical Hookup: \$ 1,800.00
Exclusions:		Tailpipe Modifications (3): \$ 400.00
Drawings not included.		Lifts: \$ 300.00
Permit fees of any kind are not included.		Freight: \$ 550.00
		Installation Labor: \$ 6,000.00
		TOTAL: \$ 36,972.01

Delivery of system will be within 4 to 5 weeks of proposal acceptance.

Payment to be made as follows: Equipment due on delivery, balance due on completion of mechanical installation

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado, and other necessary insurance. Our workers are fully covered by Workman's compensation Insurance.

Authorized Signature:

RICHARD F. BERTANI

Note: This proposal may be with-drawn by us if not accepted within

45 days.

ACCEPTANCE OF PROPOSAL and TERMS AND

CONDITIONS. (Pages 1 and 2, inclusively.) The above prices, specifications and Terms and Conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. By signing where indicated, you, as agent for the organization proposed, hereby authorized Air Exchange, Inc. to perform the work as specified on Page 1 of 2 of this proposal and agree and accept the Terms and Conditions (Page 2 of 2) of this proposal. Payment will be made as outlined above.

SIGNATURE: _____

DATE OF
ACCEPTANCE: _____

AIR EXCHANGE, INC.

The Clean Air Specialists

1185 San Mateo Avenue
San Bruno, CA 94066
650-871-2945 Fax 650-871-2948

DATE

03/08/05

JOB NAME Milpitas F.D. STA #2, #3

JOB ADDRESS Yosemite Dr, #3, 25 Midwick E



Remove Nederman
use existing penetration
ceiling 14'
Put motor on roof

2 STR-502

AIR EXCHANGE, INC.

The Clean Air Specialists

1185 San Mateo Avenue
San Bruno, CA 94066

Phone: 650-871-2945

Fax: 650-871-2948

Proposal submitted to: Milpitas Fire Department	Phone: (408) 586-2822	Date: 3/9/2005
Street: 25 Curtise Avenue	Application Engineer: DICK BERTANI	
City, State and Zip Code: Milpitas Ca., 95035	Job Location: Station #3, 25 Midwick Drive Opt B	
Customer Representative: Geoff Maloon	Title: e-mail Batt. Chief	gmaloon@sbcglobal.net Job Phone:

We hereby submit estimate for our AIR CLEANING SYSTEM in accordance with the following:

Two (2)	Plymovent SBTA-502D sliding balancer track systems, drive through, 2 vehicles each	\$ 19,960.00
One (1)	Plymovent Alum non sparking fan, w/ 5hp, 240v, 1ph TEFC motor,	\$ 2,606.00
One (1)	Plymovent Control panel, UL listed, w/ pressure sensors, OS-3 706017	\$ 1,248.00
One (1)	Air compressor	\$ 620.00

Ductwork, miscellaneous parts and installation material \$ 1,360.00

Material Subtotal: \$ 25,794.00

8.25% Sales Tax: \$ 2,128.01

Electrical Hookup: \$ 1,800.00

Exclusions:

Tailpipe Modifications (3): \$ 400.00

Lifts: \$ 300.00

Drawings not included.

Freight: \$ 550.00

Permit fees of any kind are not included.

Installation Labor: \$ 6,000.00

TOTAL: \$ 36,972.01

Delivery of system will be within 4 to 5 weeks of proposal acceptance.

Payment to be made as follows: Equipment due on delivery, balance due on completion of mechanical installation

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado, and other necessary insurance. Our workers are fully covered by Workman's compensation Insurance.

Authorized Signature:

RICHARD F. BERTANI

Note: This proposal may be with-drawn by us if not accepted within

45 days.

ACCEPTANCE OF PROPOSAL and TERMS AND

CONDITIONS. (Pages 1 and 2, inclusively.)

The above prices, specifications and Terms and Conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. By signing where indicated, you, as agent for the organization proposed, hereby authorized Air Exchange, Inc. to perform the work as specified on Page 1 of 2 of this proposal and agree and accept the Terms and Conditions (Page 2 of 2) of this proposal. Payment will be made as outlined above.

SIGNATURE: _____

DATE OF
ACCEPTANCE: _____

AIR EXCHANGE, INC.

The Clean Air Specialists

1185 San Mateo Avenue
San Bruno, CA 94066
650-871-2945 Fax 650-871-2948

DATE

03/08/05

JOB NAME Milpitas F.D. Sta #2, #3

JOB ADDRESS Yosemite Dr, #3, 25 Midwick

Remove Nederman
use existing penetration
ceiling 14'
put motor on roof

2 STR-502

AIR EXCHANGE, INC.

The Clean Air Specialists

1185 San Mateo Avenue
San Bruno, CA 94066

Phone: 650-871-2945
Fax: 650-871-2948

Proposal submitted to: Milpitas Fire Department	Phone: (408) 586-2822	Date: 3/9/2005
Street: 25 Curtise Avenue	Application Engineer: DICK BERTANI	
City, State and Zip Code: Milpitas Ca., 95035	Job Location: Station #4, 775 Barber Lane, OptionB	
Customer Representative: Geoff Maloon	e-mail: gmaloon@sbcglobal.net	Title: Job Phone:

We hereby submit estimate for our AIR CLEANING SYSTEM in accordance with the following:

Two (2)	Plymovent SBTA-21B sliding balancer tracks	\$ 8,974.00
One (1)	Plymovent A/mag non sparking fan, w/ 5hp, 240v, 1ph TEFC motor	\$ 2,606.00
One (1)	Plymovent Control panel, UL listed, w/ pressure sensors, OS-3 706017	\$ 1,248.00
One (1)	Air compressor	\$ 620.00
One (1)	Plymovent SBTA-501 straight rail system, drive through	\$ 9,980.00
	Ductwork, miscellaneous parts and installation material	\$ 1,360.00

Material Subtotal:	\$ 24,788.00
8.25% Sales Tax:	\$ 2,045.01
Electrical Hookup:	\$ 1,800.00
Tailpipe Modifications (3):	\$ 400.00
Lifts:	\$ 300.00
Freight:	\$ 580.00
Installation Labor:	\$ 4,800.00
TOTAL:	\$ 34,713.01

Exclusions:

Drawings not included.
Permit fees of any kind are not included.

Delivery of system will be within 4 to 5 weeks of proposal acceptance.

Payment to be made as follows: Equipment due on delivery, balance due on completion of mechanical installation

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado, and other necessary insurance. Our workers are fully covered by Workman's compensation insurance.

Authorized Signature:

RICHARD F. BERTANI

Note: This proposal may be with-drawn by us if not accepted within

45 days.

ACCEPTANCE OF PROPOSAL and TERMS AND

CONDITIONS. (Pages 1 and 2, inclusively.) The above prices, specifications and Terms and Conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. By signing where indicated, you, as agent for the organization proposed, hereby authorized Air Exchange, Inc. to perform the work as specified on Page 1 of 2 of this proposal and agree and accept the Terms and Conditions (Page 2 of 2) of this proposal. Payment will be made as outlined above.

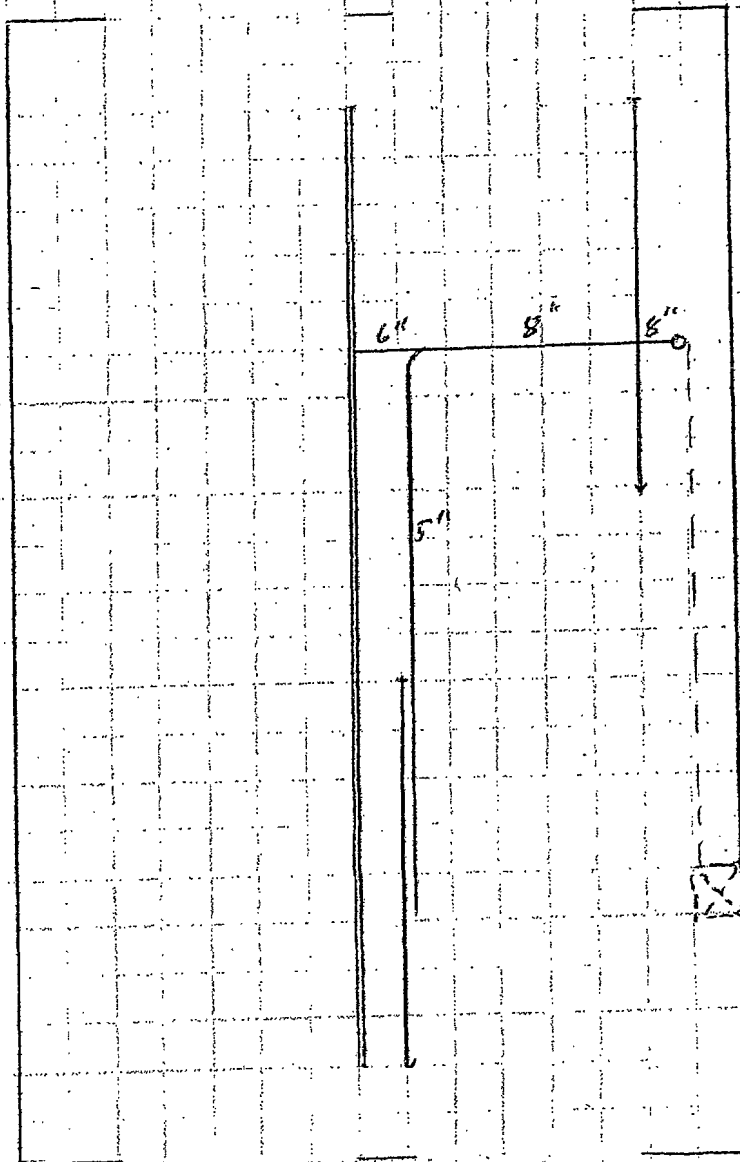
SIGNATURE: _____

DATE OF
ACCEPTANCE: _____

AIR EXCHANGE, INC.
The Clean Air Specialists

1185 San Mateo Avenue
San Bruno, CA 94066
650-871-2945 Fax 650-871-2948

DATE 03/08/08
JOB NAME Milpitas FD Sta #4
JOB ADDRESS 775 Karber Lane



Remove Nederman systems
& blower. Mount motor in
attic
(existing duct goes into attic
& then drops down to motor)

Entire Application

Overview

Are you a member, or are you currently involved in the management, of the fire department or non-affiliated EMS organization applying for this grant with this application?

Yes, I am a member/officer of this applicant

If you answered **No**, please **complete** the information below and press the *Save and Continue* button. If you answered **Yes**, please do **not** complete the information requested below and press the *Save and Continue* button.

Note: If you answered **No** to the above question, the fields marked with an * are required.

Preparer Information

* Preparer's Name

* Address 1

Address 2

* City

* State

California

* Zip

* Is there a grant-writing fee associated with the preparation of this request?

No

If you answered yes above, what is the fee?

\$

Contact Information

Alternate Contact Information Number 1

* Title Fire Chief
Prefix N/A
* First Name Bill
Middle Initial
* Last Name Weisgerber
* Business Phone 408-586-2811 Ext.
* Home Phone 408-690-7061 Ext.
Mobile Phone/Pager
Fax
* Email bweisgerber@ci.milpitas.ca.gov

Alternate Contact Information Number 2

* Title Captain
Prefix N/A
* First Name Jeff
Middle Initial
* Last Name Maxwell
* Business Phone 408-586-2840 Ext.
* Home Phone 831-809-3489 Ext.
Mobile Phone/Pager
Fax
* Email jmaxwell@ci.milpitas.ca.gov

Applicant Information

EMW-2005-FG-19262

Originally submitted on 04/08/2005 by Geoffrey Maloon (Userid: rbethke)

Contact Information:

Address: 3358 Axford Road

City: Santa Cruz

State: California

Zip: 95062

Day Phone: 408-586-2840

Evening Phone:

Cell Phone: 831-277-2198

Email: gmaloon@sbcglobal.net

Application number is EMW-2005-FG-19262

* Organization Name	Milpitas Fire Department
* Type of Applicant	Fire Department
* Type of Jurisdiction Served	City
If other, please enter the type of Jurisdiction	
* Employer Identification Number	94-6019192
* Does your organization have a DUNS Number?	Yes
If yes, please enter the DUNS Number	
Headquarters Physical Address	
* Physical Address 1	777 S. MAIN ST
Physical Address 2	
* City	Milpitas
* State	California
* Zip	95035 - 5322
Need help for ZIP+4?	
Mailing Address	
* Mailing Address 1	777 S. MAIN ST
Mailing Address 2	
* City	Milpitas
* State	California
* Zip	95035 - 5322
Need help for ZIP+4?	
Account Information	
* Type of bank account	Checking
* Bank routing number - 9 digit number on the bottom left hand corner of your check	121000248
* Your account number	4050010628

Additional Information

* For this fiscal year (Federal) is your jurisdiction receiving Federal funding from any other grant

) program that may duplicate the purpose and/or scope of this grant request? No

* If awarded this grant, will your jurisdiction expend greater than \$300,000 in Federal share funds during the Federal fiscal year in which the grant was awarded? No

* Is the applicant delinquent on any federal debt? No

If you answered yes to any of the additional questions above, please provide an explanation in the space provided below:

)

)

Department Characteristics (Part I)

* Are you a member of a Federal Fire Department or contracted by the Federal government and solely responsible for suppression of fires on Federal property? No

* What kind of organization do you represent? All Paid/Career

If you answered combination, above, what is the percentage of career members in your organization? %

* What type of community does your organization serve? Suburban

* What is the square mileage of your primary response area? 14

* What percentage of your response area is protected by hydrants? 90 %

* In what county/parish is your organization physically located? If you have more than one station, in what county/parish is your main station located? Santa Clara

* Does your organization protect critical infrastructure of the state? Yes

* How much of your jurisdiction's land use is for agriculture, wild land, open space, or undeveloped properties? 10 %

* What percentage of your jurisdiction's land use is for commercial, industrial, or institutional purposes? 30 %

* What percentage of your jurisdiction's land is used for residential purposes? 60 %

* How many commercial, industrial, residential, or institutional structures in your jurisdiction are more than four stories tall? 5

* What is the permanent resident population of your Primary/First Due Response Area or jurisdiction served? 65000

* How many active firefighters does the department have who perform firefighting duties? 63

* How many personnel provide only EMS service delivery? 0

* How many stations are in your organization? 4

* Do you currently report to the National Fire Incident Reporting System (NFIRS)? Yes

If you answered yes above, please enter your FDIN/FDID N43030

* What services does your organization provide?

Structural Fire Suppression
Wildland Fire Suppression

Basic Life Support
Advanced Life Support

Hazmat Operational Level
Hazmat Technical Level
Rescue Operational Level
Rescue Technical Level

)

)

)

Department Characteristics (Part II)

* What is the total number of fire-related civilian fatalities in your jurisdiction over the last three years?	1
* What is the total number of fire-related civilian injuries in your jurisdiction over the last three years?	1
* What is the total number of line of duty member fatalities in your jurisdiction over the last three years?	0
* What is the total number of line of duty member injuries in your jurisdiction over the last three years?	46
* In an average year, how many times does your organization receive mutual/automatic aid?	22
* In an average year, how many times does your organization provide mutual/automatic aid?	34
* What was your organization's estimated average annual operating budget over the last three years?	15000000
* What percentage of your annual operating budget is dedicated to personnel costs (salary, overtime and fringe benefits)?	88 %
* What percentage of your annual operating budget is derived from: Enter numbers only, percentages must sum up to 100%	
Taxes?	100 %
Grants?	0 %
Donations?	0 %
Fund drives?	0 %
Other?	0 %

If you entered a value into Other field (other than 0), please explain

*How many vehicles does your organization have in each of the categories below? Enter numbers only and enter 0 if you do not have any of the vehicles below

Total Number

Engines (or pumpers): Pumper, Pumper/Tanker, Rescue/Pumper, Foam Pumper, CAFS Pumper, Quint (Aerial device of less than 76 feet), Fire Boats (more than 13 feet long), Type I, Type II, Type III Engine, Tanker, Tender, Foam Tanker/Tender (greater than 1,200 gallon tank capacity)	10
Aerial Apparatus: Aerial Ladder Truck, Telescoping, Articulating, Ladder Towers, Platform, Tiller Ladder Truck, Quint (Aerial device of 76 feet or greater)	1
Brush/Quick attack : Brush Truck, Patrol Unit (Pick up w/ Skid Unit), Quick Attack Unit, Mini-Pumper, Type IV Engine	1
Rescue Vehicles: Rescue Squad, Rescue (Light, Medium, Heavy), Technical Rescue Vehicle, Hazardous Materials Unit	2
Other: EMS Chase Vehicle, Air/Light Unit, Rehab Units, Bomb Unit, Technical Support (Command, Operational Support/Supply), Hose Tender, Salvage Truck, ARFF (Aircraft Rescue Firefighting), Command/Mobile Communications Vehicle, Other Vehicle	11

Provide in the space below the following information only if you are applying for a vehicle:

If you have 15 emergency response vehicles or less, list all vehicles providing the type, the age, the pump capacity (GPM) if applicable, and the carrying capacity (gallons) if applicable.

If you have more than 15 emergency response vehicles, provide us with the oldest, newest, and the average age of the vehicles per type or class of vehicle.

Department Call Volume

* How many responses per year by category? (Enter whole numbers only: If you have no calls for any of the categories, enter 0)

Structural Fires	104
Vehicle Fires	37
Vegetation Fires	29
EMS Response Call	2171
Rescue	274
Hazardous Condition/Materials Calls	80
Service Calls	233
Good Intent Calls/False Alarms	708
Other Calls and Incidents	5

Request Information

* 1. Select a program for which you are applying. Remember, you can only apply for one program this year. You can apply for as many activities within a program as you need.
(If you modify your selection, you will lose data entered under the original activity.)

Program Name

Operations and Safety

* 2. Will this grant benefit more than one organization?

No

If you answered Yes to Question 2 above, please explain.

Request Details

The activities for program **Operations and Safety** are listed in the table below.

Activity	Number of Entries	Total Cost	Additional Funding
Equipment	0	\$ 0	\$ 0
Modify Facilities	1	\$ 108,657	\$ 0
Personal Protective Equipment	0	\$ 0	\$ 0
Training	0	\$ 0	\$ 0
Wellness and Fitness Programs	0	\$ 0	\$ 0

Modify Facilities

*1. On what type of modification will the funds be spent?

Exhaust System(s)

Please provide further description of the item selected above

Four drop full capture exhaust extraction system for three stations.

*2. What is the age of the facility that is being modified?

35 years

*3. What type of facility will be modified?

Station(s)

If you answered other, above, please specify.

*4. What is the level of occupancy for the facility you wish to modify? Note: The occupancy is defined by the number of hours the facility is used within a single 24 hour time period

Full-Time

*5. What is the maximum occupancy of the building or facility to be modified?

75 number of people

*6. Is the facility that you wish to modify open for use by other organizations or community groups on a regular (i.e., weekly, monthly) basis?

Yes

If you answered Yes, above, please explain

Voting, tours, classes and various civic functions.

Budget Item

) *Item Exhaust system
 Select Object Class Equipment
 If you selected other above, please specify
 * Number of units 1 (Whole number only)
 * Cost per unit \$ 36972 (Whole dollar amounts only)

Budget Item

*Item Exhasut system
 Select Object Class Equipment
 If you selected other above, please specify
 * Number of units 1 (Whole number only)
 * Cost per unit \$ 36972 (Whole dollar amounts only)

Budget Item

*Item Exhaust system
 Select Object Class Equipment
 If you selected other above, please specify
 * Number of units 1 (Whole number only)
 * Cost per unit \$ 34713 (Whole dollar amounts only)

Budget**Budget Object Class**

a. Personnel	\$ 0
b. Fringe Benefits	\$ 0
c. Travel	\$ 0
d. Equipment	\$ 108,657
e. Supplies	\$ 0
f. Contractual	\$ 0
g. Construction	\$ 0
h. Other	\$ 0
i. Indirect Charges	\$ 0
Federal and Applicant Share	
Federal Share	\$ 86,926
Applicant Share	\$ 21,731
Federal Rate Sharing (%)	80/20
* Non-Federal Resources (The combined Non-Federal Resources must equal the Applicant Share of \$ 21,731)	

a. Applicant	\$ 21,731
b. State	\$ 0
c. Local	\$ 0
d. Other Sources	\$ 0

If you entered a value in Other Sources, include your explanation below. You can use this space to provide information on the project, cost share match, or if you have a indirect cost agreement with a federal agency.

Total Budget \$ 108,657

Narrative Statement

Project Description

* Please provide your narrative statement in the space provided below. Include in your narrative; details regarding (1) your project's description and budget, (2) your organization's financial need, (3) the benefit to be derived from the cost of your project, and (4) how the activities requested in your application will help your organization's daily operations and how this grant will protect life and property.

Our system has determined that you are an Urban community while you have entered that you are a Suburban community. In addition to your narrative statement, please explain why you feel that you are a Suburban community.

On behalf of the Milpitas Fire Department I would like to thank the United States Department of Homeland Security, the Office for Domestic Preparedness and the United States Fire Administration for the opportunity to apply for Assistance to Firefighters Grant funding. Funds will be used to enhance the safety and long-term health of Milpitas Firefighters.

The City of Milpitas is located in the heart of the Silicon Valley in Santa Clara County and is tasked with protecting the lives and property of 65,000 residents spread over fourteen square miles. Services provided by the Department include fire suppression, ALS first response, technical/specialist level hazardous materials mitigation and USAR technical rescue provided by 72 safety personnel working from four stations strategically placed throughout the city. The area served by the Milpitas Fire Department presents our firefighters with a myriad of rescue and suppression challenges including hazardous materials used in the high tech industry, a commuter and freight rail line, three major highways, a large wildland/urban interface area and high value light and medium industry.

A number of years ago the Department recognized the need for an organized safety improvement program that would be tasked with identification of safety deficiencies in equipment and/or operational procedures. A safety committee was formed and has succeeded in identifying numerous opportunities for safety improvements and provided workable solutions as needed. When evaluating safety deficiencies in equipment or procedure the safety committee considers the following criteria:

- Local, State and National standards
- Specialized needs
- Age and condition of existing equipment
- Recent "lessons learned"
- Firefighter injuries and deaths
- Cost and financial impact of replacement/refurbishment/new purchase

The City has effectively addressed and corrected numerous safety deficiencies since the inception of the safety program. Some of the corrections include: Replacement of unsafe apparatus, safe staffing level adjustments, training deficiencies, procedural changes, communications upgrades, thermal imaging, and a PPE replacement program. The City has prioritized the implementation of any and all firefighter safety initiatives that are realistic and fiscally possible and has made great strides toward improving the safety of firefighters that face enough danger in an inherently unsafe profession.

Diesel vehicle exhaust has been proven to be a carcinogenic respiratory hazard and has led to the passage of numerous pieces of legislation determining presumptive lung disease disability as a result of continuous prolonged exposure. The Milpitas Fire Department would like to focus on prevention of rather than care for members that have been stricken with lung disease and forced into an early retirement and an early grave. To that end the City is requesting \$108,657.00 for the purchase of a replacement vehicle exhaust capture and evacuation system as detailed below:

- Two (2) sliding balancer tracks: \$8,974.00
- Four (4) sliding balancer track systems (2 vehicle): \$39,920.00
- One (1) straight rail drive through: \$9,980.00
- Three (3) 5hp aluminum 220v fans: \$7,818.00
- Three (3) control panels: \$3,744.00

- Three (3) air compressors: \$1,860.00
- Ductwork, hardware and parts: \$4,080.00
- Electrical hookups: \$5,400.00
- Tailpipe modifications: \$1,200.00
- Lifts and other expenses: \$900.00
- Shipping: \$1,680.00
- Installation labor: \$16,800.00
- Tax: \$6,301.00
- Total Federal: \$86,926.00 Total Local: \$21,731.00

The purchase of the above listed equipment will allow for the purchase and placement of a vehicle exhaust capture and evacuation system in all three City stations without an effectively functioning system. All City stations are occupied on a full-time basis and are open to the public for various functions including voting, neighborhood association meetings, public tours, fire prevention activities, etc.

Financial Need

Unfortunately, budget constraints have recently limited and hampered City efforts to enhance firefighter safety through the implementation of safety committee recommendations. The City is facing an uncertain financial future as a result of the economic downturn that has hit Silicon Valley especially hard. Recently ranked one of the most expensive areas in the nation to live, the Silicon Valley economy is in a very precarious position that is exacerbated by the state and national economic downturn. Unemployment remains nearly double the national average and housing, fuel and other staples have increased exponentially. The result is vacant office and industrial space and higher demands on social services and other municipal functions.

Property tax revenues have steadily declined over the last few years as high tech companies fold up and move on and have failed to keep pace with the demands on City resources. Additionally, the California Public Employee Retirement System has levied significant additional employer contribution premiums for the last five years. Beginning in 2001-2002 budget year the City paid 1.99 million in additional PERS contributions increasing each year as follows: (02-03) \$3,470,000.00, (03-04) \$4,340,000.00, (04-05) \$6,880,000.00, (05-06 projection) \$8,320,000.00. These numbers are reflective of PERS rate increases, not basic contributions. PERS rate increases alone will account for 7.1% of the City's total general fund budget in 2005-2006.

Medical insurance premium costs have risen steadily in recent years with an overall cost increase from \$478.00 per month in 2000 to \$922.00 per month on 2005. Future increases of the same amount are forecasted in the near future. Supplies and services, equipment maintenance and repair costs and fuel have also increased substantially over the same period.

Overall general fund revenue has declined from 53.9 million in FY 2000 to 37.5 million in FY 2004. This is an astonishing decline in revenues considering the aforementioned cost increases.

The City faces a \$14,000,000.00 shortfall this budget year and Department heads have been tasked with identifying ways to cut costs. The Fire Department has four positions that have been left vacant, two slated for possible indefinite vacancy and one that is slated for possible elimination this budget year. With minimum staffing on apparatus at three with the ladder and rescue cross-manned with a crew of three the Department will be hard pressed to vacate positions and maintain even an illusion of safe staffing levels. With national standards calling for staffing of four firefighters per rig as a minimum we are facing the vacancy of line positions while already being made to suffice with the bare minimum of three.

With the State of California facing a nearly insurmountable budget shortfall of \$18,000,000,000.00 the Governor has resorted to property tax shifts and State "money grabs" in an effort to balance the state budget. While doing so he also repealed the Vehicle License Fee that reduced funding to local governments by over two billion dollars. These shifts have cost the City \$4,000,000.00 this fiscal year.

As a result of the above difficulties the City has implemented the following budget solution strategies for fiscal year 2005-2006:

- Fund only 95% of operating budget (5% across the board cut)
- Hiring freeze for all positions (including safety positions)
- Reduce workforce through attrition (additional safety positions left vacant)

While Fire Department and City administrators realize the value in protecting the respiratory health of our firefighters and are wholly committed to improving safety and working conditions we are simply "unable, as the old saying goes, to squeeze blood from a turnip." Funding for this project does not exist on a local level and with the state of the current economy there is no indication of relief in sight.

Cost-Benefit

In the cost benefit analysis the Department prioritized our funding request pursuant to the parameters set forth in the AFG Program Guidance and ensured that our request met funding priorities including: protection of critical infrastructure, compliance with national standards and guidelines, stations occupied 24 hours per day, multiple agencies/groups benefit.

Additionally, it should be noted that we made every effort to keep costs low as is reflected in the budget narrative and the program is limited in scope and focused on a single goal while providing for a quantifiable improvement in the station environment. The financial need is clear and compelling, the program is worthwhile and qualified and the benefit is considerable. For just .00014% of available funding the AFG funds can supplement an already established and effective firefighter safety program.

AFG funds will have a difficult time finding a more cost-effective project for funding. With presumptive cancer legislation, litigious survivors, OSHA and NFPA regulation and various other "motivating" factors, the impetus is on employers to resolve easily correctable safety deficiencies before they lead to a line-of-duty death. The emotional toll aside, the financial costs of a line-of-duty death from carcinogen exposure are very real and a single death may pay millions in survivor benefits.

A single PSOB death benefit payment stands at a whopping \$275,000.00 payable by the federal government to the survivors of a fallen firefighter. Additionally, there are health care considerations, worker's compensation payments up to \$375,000.00, life insurance costs and pensions payouts.

Finally, there is the human toll. The loss of a member in the line of duty is the most devastating experience a fire department can suffer. Families, friends and co-workers left behind to grieve the loss and question why. To save a young child from a burning home, or because we failed to provide a safe station environment when our members were not "on the job"?

OPERATIONAL OUTCOMES

Operational outcomes will be both easy and difficult to measure precisely. Contamination of station equipment, sleeping and office areas, PPE and the like will be noticeably and substantially reduced providing for a quantifiable positive operational outcome. At the same time we will be unable to determine what members of the public and City will be spared a shortened life or the destructive effects of occupational cancers because they will never materialize.

The reduction in exhaust exposure and the air quality levels in the stations will provide for a measurable and positive operational outcome while the reduction in risk from carcinogenic exposure to our personnel and station visitors will substantially reduce the chances of cancer, respiratory health problems and associated illnesses.

Thank you for your consideration.

* Please describe any grants that you currently have with DHS including the AFG, for example, 2002 AFG grant for vehicle or 2003 ODP grant for exercises. (Enter "N/A" if Not Applicable)

N/A

Assurances and Certifications

Form 20-16A

You must read and sign these assurances by providing your password and checking the box at the bottom of this page.

Note: Fields marked with an * are required.

Assurances Non-Construction Programs

Note: Certain of these assurances may not be applicable to your project or program. If you have any questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States, and if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. Section 4728-4763) relating to prescribed standards for merit systems for programs funded under one of the nineteen statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. Sections 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. Section 794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. Sections 6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) Sections 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290-dd-3 and 290-ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Acts of 1968 (42 U.S.C. Section 3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Title II and III of the Uniform

Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or Federally assisted programs. These requirements apply to all interest in real property acquired for project purposes regardless of Federal participation in purchases.

8. Will comply with provisions of the Hatch Act (5 U.S.C. Sections 1501-1508 and 7324-7328), which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. Sections 276a to 276a-7), the Copeland Act (40 U.S.C. Section 276c and 18 U.S.C. Sections 874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. Sections 327-333), regarding labor standards for Federally assisted construction sub agreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in flood plains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. Section 1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. Section 7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended, (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. Section 1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. 2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. Section 4801 et seq.) which prohibits the use of lead based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act of 1984.
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations and policies governing this program.
19. It will comply with the minimum wage and maximum hours provisions of the Federal Fair Labor Standards Act (29 U.S.C. 201), as they apply to employees of institutions of higher education, hospitals, and other non-profit organizations.

Signed by **Geoffrey Maloon** on 03/30/2005

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Form 20-16C

- You must read and sign these assurances by providing your password and checking the box at the bottom of this page.

Note: Fields marked with an * are required.

Certifications Regarding Lobbying, Debarment, Suspension and Other Responsibility Matters and Drug-Free Workplace Requirements.

Applicants should refer to the regulations cited below to determine the certification to which they are required to attest. Applicants should also review the instructions for certification included in the regulations before completing this form. Signature on this form provides for compliance with certification requirements under 44 CFR Part 18, "New Restrictions on Lobbying; and 28 CFR Part 17, "Government-wide Debarment and Suspension (Non-procurement) and Government-wide Requirements for Drug-Free Workplace (Grants)." The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Homeland Security (DHS) determines to award the covered transaction, grant, or cooperative agreement.

1. Lobbying

A. As required by the section 1352, Title 31 of the US Code, and implemented at 44 CFR Part 18 for persons (entering) into a grant or cooperative agreement over \$100,000, as defined at 44CFR Part 18, the applicant certifies that:

(a) No Federal appropriated funds have been paid or will be paid by or on behalf of the undersigned to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with the making of any Federal grant, the entering into of any cooperative agreement and extension, continuation, renewal amendment or modification of any Federal grant or cooperative agreement.

(b) If any other funds than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with this Federal grant or cooperative agreement, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying Activities", in accordance with its instructions.

(c) The undersigned shall require that the language of this certification be included in the award documents for all the sub awards at all tiers (including sub grants, contracts under grants and cooperative agreements and sub contract(s)) and that all sub recipients shall certify and disclose accordingly.

2. Debarment, Suspension and Other Responsibility Matters (Direct Recipient)

A. As required by Executive Order 12549, Debarment and Suspension, and implemented at 44CFR Part 67, for prospective participants in primary covered transactions, as defined at 44 CFR Part 17, Section 17.510-A, the applicant certifies that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, sentenced to a denial of Federal benefits by a State or Federal court, or voluntarily excluded from covered transactions by any Federal department or agency.

(b) Have not within a three-year period preceding this application been convicted of or had a civilian judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain or perform a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.

(c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of

this certification: and

(d) Have not within a three-year period preceding this application had one or more public transactions (Federal, State, or local) terminated for cause or default; and

B. Where the applicant is unable to certify to any of the statements in this certification, he or she shall attach an explanation to this application.

3. Drug-Free Workplace (Grantees other than individuals)

As required by the Drug-Free Workplace Act of 1988, and implemented at 44CFR Part 17, Subpart F, for grantees, as defined at 44 CFR part 17, Sections 17.615 and 17.620:

(A) The applicant certifies that it will continue to provide a drug-free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;

(b) Establishing an on-going drug free awareness program to inform employees about:

- (1) The dangers of drug abuse in the workplace;
- (2) The grantee's policy of maintaining a drug-free workplace;
- (3) Any available drug counseling, rehabilitation and employee assistance programs; and
- (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(c) Making it a requirement that each employee to be engaged in the performance of the grant to be given a copy of the statement required by paragraph (a);

(d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will:

- (1) Abide by the terms of the statement and
- (2) Notify the employee in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction.

(e) Notifying the agency, in writing within 10 calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to the applicable DHS awarding office, i.e. regional office or DHS office.

(f) Taking one of the following actions, against such an employee, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted:

- (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
- (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement or other appropriate agency.

(g) Making a good faith effort to continue to maintain a drug free workplace through implementation of paragraphs (a), (b), (c), (d), (e), and (f).

(8) The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance

Street

City

State

Zip

Action

If your place of performance is different from the physical address provided by you in the Applicant Information, press *Add Place of Performance* button above to ensure that the correct place of performance has been specified. You can add multiple addresses by repeating this process multiple times.

Section 17.630 of the regulations provide that a grantee that is a State may elect to make one certification in each Federal fiscal year. A copy of which should be included with each application for DHS funding. States and State agencies may elect to use a Statewide certification.

Signed by **Geoffrey Maloon** on 03/30/2005

FEMA Standard Form LLL

Only complete if applying for a grant for more than \$100,000 and have lobbying activities. See Form 20-16C for lobbying activities definition.

This form is not applicable